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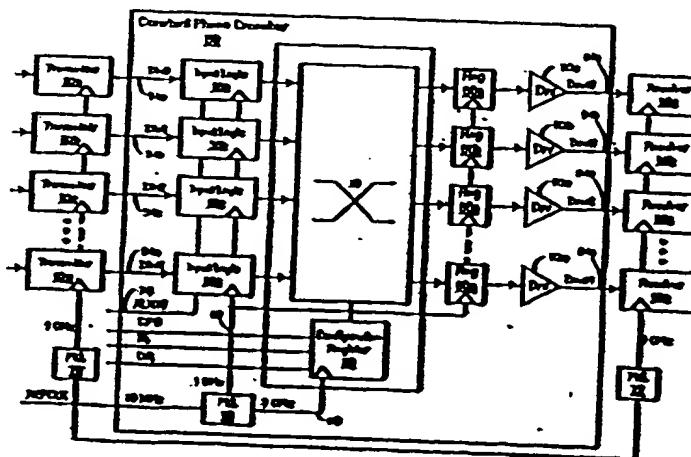
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5) Title: CONSTANT PHASE CROSSBAR SWITCH



## Abstract

A constant phase crossbar switch system (30) which avoids phase discontinuities at the outputs of the crossbar switch. The crossbar system includes input logic (56a—56n), a crossbar switch (58), output logic (60a—60n) and a phase locked loop (60). The phase loop is used to generate a high speed internal clock from a system clock. High speed serial data streams transmitted at the internal frequency are received from corresponding transmitters and are coupled to the input logic. The input logic generates multiple versions of a serial data stream, one of the versions being undelayed and the other versions delayed by some fraction of a bit time. State machines are employed to select the version of the serial data stream which resides in the data window being generally centered with respect to the high speed internal clock. The selected version of the data stream is employed as the active input to the crossbar switch. The delayed version of each of the serial data streams is clocked into a output register which is clocked by the internal clock. The selection of the delayed version of the serial data streams in the described manner avoids phase discontinuities upon switching of routing transmitters.